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Tetsuya Kato

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EXAMINER

MOORE JR, MICHAEL J

ART UNIT

PAPER NUMBER

2666

9

DATE MAILED: 06/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/635,131

Applicant(s)

KATO, TETSUYA

Examiner

Michael J. Moore, Jr.

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-4 and 6-11 is/are allowed.
- 6) ☒ Claim(s) 1 and 5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. Claims **2-4** are objected to because of the following informalities:

Regarding claim **2**, the first instance of the word "request" should be "requests" on line 3.

Regarding claim **3**, the first instance of the word "request" should be "requests" on line 6.

Regarding claim **4**, the first instance of the word "request" should be "requests" on line 6.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims **1 and 5** are rejected under 35 U.S.C. 102(e) as being anticipated by Willard (U.S. 6,374,405). The Willard reference teaches all of the limitations of the listed claims with the reasoning that follows.

Regarding claim **1**, the scheduler 34 of Figure 3 of Willard anticipates a scheduling controller. A request receiving means for receiving a plurality of processing

requests is anticipated by the interspersed packet transmission by scheduler 34 in column 6, lines 8-16 of Willard. A start time calculating means is anticipated by the start time calculator spoken of in column 6, lines 65-66 of Willard. Calculation of a scheduling start time relative to a predetermined scheduling end time according to number and type of processing requests is anticipated by Figure 5, Figure 7a, and column 9, lines 22-25 as well as column 7, lines 28-40 of Willard. Figure 5 shows a module 51 that contains a data segment, which can contain various types of data as described in column 7, lines 28-40. Figure 7a shows a predetermined end time  $D_1$  that is used to determine a start time  $S_1$ . Figure 7a also shows a number of packets (processing requests) that are scheduled in scheduling intervals. A scheduling means for scheduling received processing requests is anticipated the scheduler 34 of Figure 3 of Willard.

Regarding claim 5, a scheduling method is anticipated by the scheduling method spoken of in column 2, lines 28-29 of Willard. Receiving a plurality of processing requests is anticipated by the plurality of packetized modules spoken of in column 2, line 29 of Willard. Calculating a scheduling start time relative to a predetermined end time is anticipated by Figure 5, Figure 7a, and column 9, lines 22-25 as well as column 7, lines 28-40 of Willard. Figure 5 shows a module 51 that contains a data segment, which can contain various types of data as described in column 7, lines 28-40. Figure 7a shows a predetermined end time  $D_1$  that is used to determine a start time  $S_1$ . Figure 7a also shows a number of packets (processing requests) that are scheduled in

scheduling intervals. Scheduling processing requests is anticipated by the scheduled module transmission spoken of in column 3, lines 3-9 of Willard.

***Allowable Subject Matter***

4. Claims **2-4 and 6-11** are allowable over the prior art of record.
5. The following is an examiner's statement of reasons for allowance:

Regarding claim **2**, the prior art of record teaches a scheduling controller that comprises "request receiving means for receiving processing requests from a plurality of terminal stations". The prior art of record also teaches "start time calculating means for calculating, according to the processing request received by the request receiving means, a scheduling start time relative to a predetermined scheduling end time". The prior art of record also teaches "scheduling means for allocating processing requests received by the request receiving means from the scheduling start time calculated by the start time calculating means to the scheduling end time, to time slots in a frame; and reporting means for reporting information of time slot allocation by the scheduling means to the terminal stations". The prior art of record fails to teach "request receiving means for receiving processing requests from a plurality of terminal stations, each of the processing requests being a transmission band pass request and including a transmission request and a data length thereof".

Regarding claim **3**, the prior art of record teaches a scheduling controller that comprises "request receiving means for receiving a plurality of processing requests; start time calculating means for calculating, according to a number of processing requests received by the request receiving means and types thereof, a scheduling start

time relative to a predetermined scheduling end time; scheduling means for scheduling processing requests received by the request receiving means from the scheduling start time calculated by the start time calculating means to the scheduling end time". The prior art of record fails to teach "storage means for storing the predetermined scheduling end time; wherein the start time calculating means calculates, according to the processing requests received by the request receiving means, a scheduling start time relative to the scheduling end time stored in the storage means".

Regarding claim 4, a scheduling controller that comprises "request receiving means for receiving a plurality of processing requests; start time calculating means for calculating, according to a number of processing requests received by the request receiving means and types thereof, a scheduling start time relative to a predetermined scheduling end time; scheduling means for scheduling processing requests received by the request receiving means from the scheduling start time calculated by the start time calculating means to the scheduling end time". The prior art of record fails to teach "processing time storage means for storing scheduling time determined beforehand for each of the processing requests, wherein the start time calculating means calculates a total time of scheduling time according to scheduling time corresponding to each processing request type stored in the processing time storage means and calculates, according to the processing requests received by the request receiving means, a scheduling start time relative to the scheduling processing end time".

Regarding claim 6, the prior art of record teaches a scheduling method that comprises "receiving processing requests from a plurality of terminal stations". The

prior art of record also teaches "calculating, according to the processing requests received by the request receiving step, a scheduling start time relative to a predetermined scheduling end time; allocating processing requests received by the request receiving step from the scheduling start time calculated by the start time calculating step to the scheduling end time to time slots in a frame; and reporting information of time slot allocation by the scheduling step to the terminal stations". The prior art of record fails to teach "receiving processing requests from a plurality of terminal stations, each of the processing requests being a transmission band pass request and including a transmission request and a data length thereof".

Regarding claims **7, 8, and 10**, these claims are further limiting to claim **2** and are thus also allowable over the prior art of record.

Regarding claim **9**, this claim is further limiting to claim **3** and is thus also allowable over the prior art of record.

Regarding claim **11**, this claim is further limiting to claim **6** and is thus also allowable over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

6. Applicant's arguments filed 3/30/2004 have been fully considered but they are not persuasive.

Regarding claims **1 and 5**, it is agreed that Willard (U.S. 6,374,405) is directed to broadcast/multicast system that hastens a start time of process demands over a downlink. It is also agreed that Applicant's invention may be applied in duplex applications. However, based upon what is claimed in claims **1 and 5**, it is held that Willard anticipates these claims with the reasoning stated above.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rhine (U.S. 6,289,383), Tiedemann, Jr. et al. (U.S. 5,914,950), Angle et al. (U.S. 6,661,788), Delp et al. (U.S. 6,477,168), Mouldsley (U.S. 6,470,006), and Lin et al. (U.S. 5,966,163) are all references that contain material pertinent to this application.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Moore, Jr. whose telephone number is (703) 305-8703. The examiner can normally be reached on Monday-Friday (8:30am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached at (703) 308-5463. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael J. Moore, Jr.  
Examiner  
Art Unit 2666

mjm MM

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